Building 38 ARARS evaluation:

CERCLA is the regulatory authority that governs the clean-up of the Mound facility. The CERCLA umbrella uses other environmental regulations to ensure that the clean-up of Mound is done in a manner that is protective of human health and the environment. The regulations that are applied to the management of hazardous waste generated at a CERCLA remediation site is RCRA. The following ARAR (Applicable, or Relevant and Appropriate Requirements) table is the regulatory analysis of how RCRA will be applied to the management of hazardous waste during the maintenance, decommissioning and demolition of Building 38.

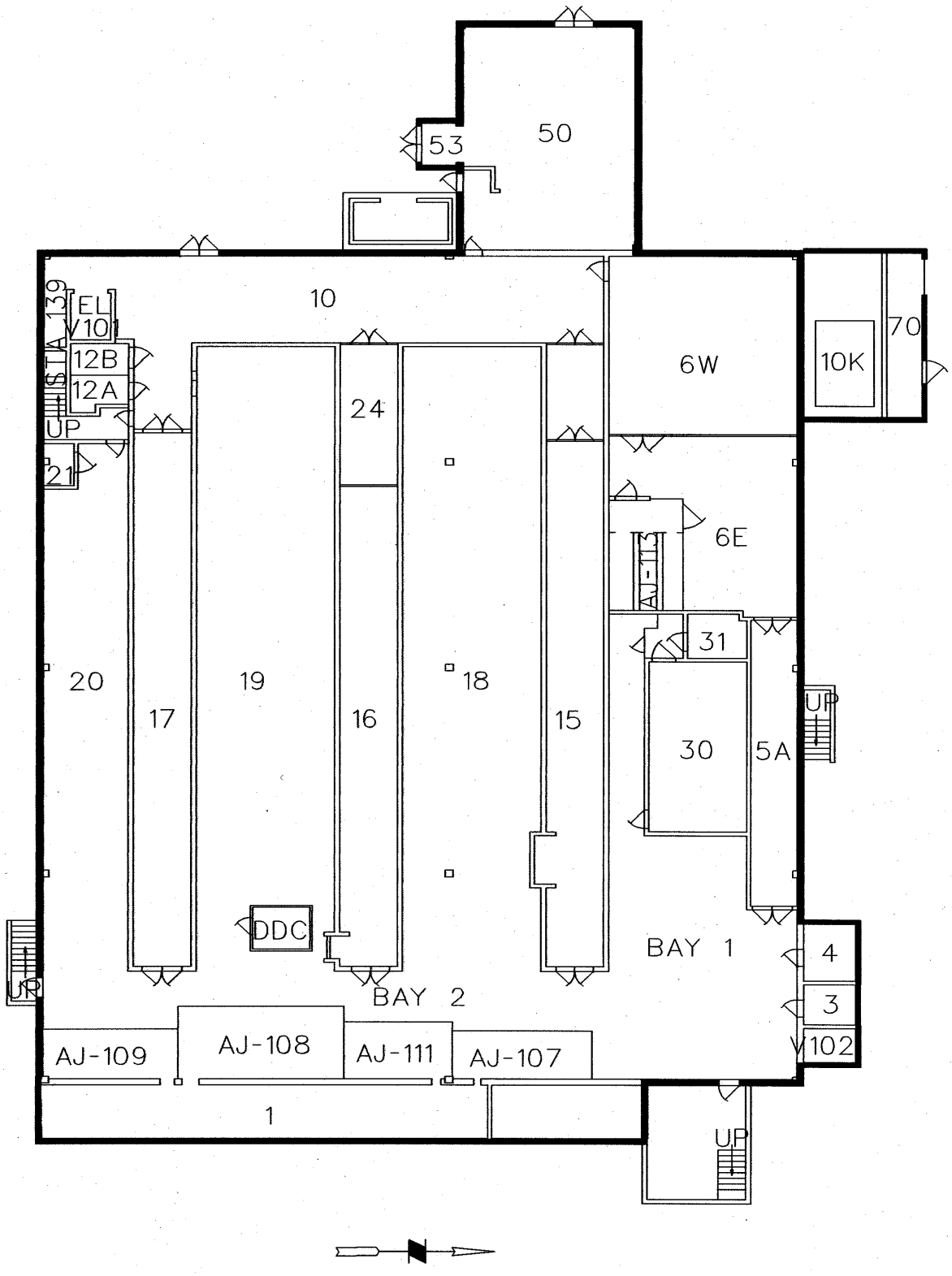
Demolition of a nuclear facility takes time and planning to accomplish, and during that time the facility must be maintained in a safe condition. Hazardous waste that may be generated in Building 38 during the maintenance time period is anticipated to be lead acid batteries from back-up electrical systems, and waste oil from vacuum pumps. Decommissioning activities take place in preparation for building demolition. Hazardous waste that could be generated from this activity include, lead loaded gloves from glove boxes, oil in pumps and reservoirs, lead bricks and miscellaneous small volume lab chemicals.

Waste from maintenance and decommissioning activities will be managed in accordance with the ARAR table until sufficient amounts are generated to transferred to an on-site hazardous waste facility. These amounts are typically 55 gallons for liquids and a 4-foot by 4-foot wooden skid for solids. Once the building has been decommissioned the actual deconstruction / demolition of the building occurs. This activity involves the removal of the structure and the foundation. Hazardous waste generated from this last activity will be approximately 150 lead pipe joints. This waste will be managed at the job site and then transferred to an on-site hazardous waste storage facility.

Lead and oil wastes are currently staged in various locations in Building 38 (see-attached floor plans). Lead bricks and shapes are stored on the ground floor in Rooms 30 and 31. Waste Oil is bulked and staged on the ground floor in Corridor 17. Potential for exposure to workers or the public is extremely low, since waste staging areas are unoccupied and secured from unauthorized entry.

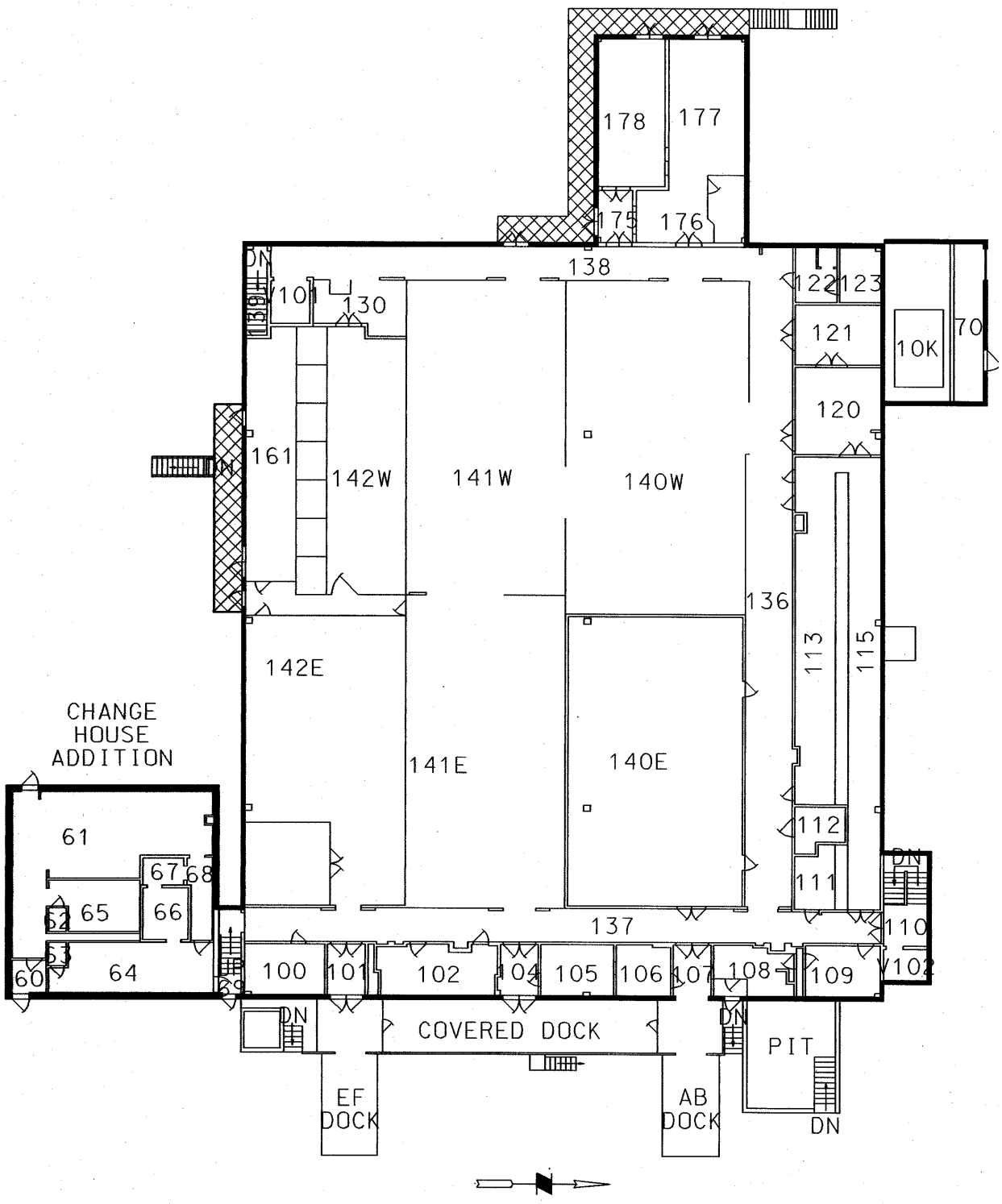
Current schedules have all work associated with Building 38 demolition completed by July 2006.

Application of ARARs to wastes expected from Building 38 removal action



Building 38 Ground Floor Layout

Application of ARARs to wastes expected from Building 38 removal action



Building 38 First Floor Layout

Application of ARARs to wastes expected from Building 38 removal action

Proposed actions involving waste	Specific actions	ARARs	Implementation of ARARs
Solids: Includes: - lead pipe joints (approx. 150) - lead-loaded gloves (three pairs) - lead-acid batteries (1-2 dozen) - lead bricks and shapes (approx. 600) - additional solid waste materials not previously considered			
1. Following generation, solid hazardous wastes will be stored in drums, on pallets, or in other appropriate containers pending characterization and disposition.	1. Storage of solids will comply with the following RCRA requirements:	1. Hazardous waste storage ARARs:	1. An appropriate check list will be developed for waste material based on physical form and types of waste stored. This check list will be documented either in the building manager's log book or designated project files.
	a. Condition of containers	a. 40 CFR 265.171; OAC 3745-55-71	a. Check list element - containers are in good condition, no evidence of leaks or spillage.
	b. Compatibility of waste with container	b. 40 CFR 265.172; OAC 3745-55-72	b. Container incompatibility will be rare for solids
	c. Management of containers	c. 40 CFR 265.173; OAC 3745-55-73	c. Check list element - containers closed except when adding or removing waste

Proposed actions involving waste	Specific actions	ARARs	Implementation of ARARs
	d. Inspections	d. 40 CFR 265.174; OAC 3745-55-74 40 CFR 264.15(a) and (c); OAC 3745-54-15 (A) and (C)	d. Document inspections quarterly in Building Managers log or designated project files; visual inspections done periodically by personnel in the area.
	e. Requirements for incompatible wastes	e. 40 CFR 265.177; OAC 3745-55-77	e. Check list element – incompatible wastes will have adequate segregation if present in the same storage area.
	f. Marking requirements	f. 40 CFR 262.34(a)(3), (c)(1)(ii); OAC 3745-52-34(A)(3), (C)(1)(b)	f. Check list element - containers marked with words to indicate contents, or as "hazardous waste".
	g. Required Equipment	g. 40 CFR 265.32 (a), (b), (c), (d); OAC 3745-54-32 (A), (B), (C), (D)	g. Check list element - verify that appropriate equipment is available on plant site or in building.
	h. Communication or Alarm System	h. 40 CFR 265.34 (a), (b); OAC 3745-54-34 (A), (B)	h. Check list element - verify that communication devices in the building are operable or that other means of communication are available.
	i. Training	i. 40 CFR 265.16 (a), (b), (c); OAC 3745-54-16 (A), (B), (C)	i. Personnel will be trained to performs inspections

Application of ARARs to wastes expected from Building 38 removal action

Proposed actions involving waste	Specific actions	ARARs	Implementation of ARARs
	j. Treatment	j. Specific ARARs will be determined at the time treatment is proposed and the treatment plan is submitted	2.
2. Solids will be surveyed and/or sampled to determine hazardous and radiological characteristics.	2. Wastes must be characterized following generation a. RCRA characterization – by sampling or process knowledge. b. Radiological characterization	2. Characterization ARARs: a. 40 CFR 262.11, OAC 3745-52-11 b. No RCRA ARARs apply.	a. If sampling is done a copy of the analytical results kept in the project file
Liquids, Including: - Vacuum pump oil / Bubbler oil (less than 55 gallons) - Elemental mercury (1 liter) - additional liquid waste materials not previously considered			
1. Potentially hazardous liquids will remain in place until D&D activities access the materials and generate the waste.	1. Pumps and bubblers are part of systems that may still be required for D&D Systems are inspected and maintained to ensure that materials are contained within systems.	1. RCRA ARARs do not apply to the systems.	

Proposed actions involving waste	Specific actions	ARARs	Implementation of ARARs
2. Liquids will be characterized to determine RCRA and radiological status.	2. Liquids must be characterized following generation. a. RCRA characterization – by sampling or process knowledge b. Radiological characterization	2. Characterization ARARs: a. 40 CFR 262.11, OAC 3745-52-11 b. No RCRA ARARs apply.	2. a. If sampling is done, a copy of the analytical results will be kept in the project file
3. When generated, liquids will be bulked and stored pending treatment (if necessary), and disposition.	3. Storage of hazardous waste liquids will comply with the following RCRA requirements: a. Condition of containers b. Compatibility of waste with container c. Management of containers	3. Hazardous waste storage ARARs: a. 40 CFR 265.171; OAC 3745-55-71 b. 40 CFR 265.172; OAC 3745-55-72 c. 40 CFR 265.173; OAC 3745-55-73	3. An appropriate check list will be developed for waste material based on physical form and types of waste stored. This check list will be documented either in the building manager's log book or designated project files. a. Check list element - containers are in good condition , no evidence of leaks or spillage. b. Check list element - appropriate container used for storage of liquids (typically metal or poly container) c. Check list element - containers closed except when adding or removing waste

Application of ARARs to wastes expected from Building 38 removal action

Proposed actions involving waste	Specific actions	ARARs	Implementation of ARARs
	d. Inspections	d. 40 CFR 265.174; OAC 3745-55-74 40 CFR 264.15(a) and (c); OAC 3745-54-15 (A) and (C)	d. Document inspections monthly in Building Managers log or designated project files; visual inspections done periodically by personnel in the area.
	e. Requirements for incompatible wastes	e. 40 CFR 265.177; OAC 3745-55-77	e. Check list element – incompatible wastes will have adequate segregation if present in the same storage area.
	f. Marking requirements	f. 40 CFR 262.34(a)(3), (c)(1)(ii); OAC 3745-52-34(A)(3), (C)(1)(b)	f. Check list element - containers marked with words to indicate contents, or as “hazardous waste”.
	g. Required Equipment	g. 40 CFR 265.32 (a), (b), (c), (d); OAC 3745-54-32 (A), (B), (C), (D)	g. Check list element - verify that appropriate equipment is available on plant site or in building.
	h. Communication or Alarm System	h. 40 CFR 265.34 (a), (b); OAC 3745-54-34 (A), (B)	h. Check list element - verify that communication devices in the building are operable or that other means of communication are available.

Application of ARARs to wastes expected from Building 38 removal action

Proposed actions involving waste	Specific actions	ARARs	Implementation of ARARs
	i. Training	i. 40 CFR 265.16 (a), (b), (c); OAC 3745-54-16 (A), (B), (C)	i. Person will be trained to performs inspections
	j. Treatment	j. Specific ARARs will be determined at the time treatment is proposed and the treatment plan is submitted	

Application of ARARs to wastes expected from Building 38 removal action